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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,775	09/23/2004	Katsumi Yamaguchi	35355/42	7973

23838 7590 06/24/2005

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WASHINGTON, DC 20005

EXAMINER

MULLIS, JEFFREY C

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/508,775

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Jeffrey C. Mullis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11-04</u> . | 6) <input type="checkbox"/> Other: _____  |

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "particle size" as appears in at least claim 1 is unclear where unqualified as to the type of particle size, for instance, weight or number average particle size since the various expressions of particle size vary.

The term "low" is subjective and therefore unclear as is recited in at least claim 5.

As methyl acrylate has 3 carbon atoms and is the simplest acrylic ester, it is not clear what is embraced by a C1 or C2 organic group as recited in claim 2.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto et al. (JP 04-279646).

Matsumoto et al. disclose a syndiotactic polystyrene composition having a 0.5 micron latex (which is subsequently grafted) produced by treating a 0.09 micron latex with a 80:20 ethylacrylate-methacrylic acid latex. As the particle size is increased from 0.5 microns to 0.09 microns agglomeration can be said to be taking place. Note the CAPLUS abstract where applicants amounts are also disclosed.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (US 5,395,890) in view of Nagata et al. (WO 02/04559 (equivalent to US 2002/0156183)).

Since US 2002/0156183 is in English, reference will be made to the '183 document.

Nakano et al disclose a rubber modified syndiotactic polystyrene composition (abstract).

Note column 4, line 66 to column 5, lines 35 for use of grafted latex as the rubber.

Nagata et al discloses applicants specific grafted rubber latex for use in a polystyrene composition. Note the abstract and paragraph 24 and paragraph 46 where the latex is added to an aromatic vinyl polymer.

The primary reference does not disclose patentees specific grafted latex (produced by applicants process). However use of the grafted latex of the secondary reference in place of the grafted latex of the primary reference would have been obvious to a practitioner having an ordinary skill in the art at the time if the invention motivated to extend the advantages disclosed by the secondary reference (increased impact strength without lowered transparency as set out at paragraph 5 of the secondary reference), absent any showing of surprising or unexpected results.

Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al., cited above in view of Nagata et al. (WO 02/04559 (equivalent to US 2002/0156183)).

The primary reference does not disclose patentees specific grafted latex of claim 5 (produced by applicants process using the agglomerating latex of claim 5). However

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use of the grafted latex of the secondary reference in place of the grafted latex of the primary reference would have been obvious to a practitioner having an ordinary skill in the art at the time if the invention motivated to extend the advantages disclosed by the secondary reference (increased impact strength without lowered transparency as set out at paragraph 5 of the secondary reference), absent any showing of surprising or unexpected results.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis at telephone number 571 272 1075.

JCM

5-27-05

Jeffrey C. Mullis  
J Mullis  
Art Unit 1711



**Jeffrey Mullis  
Primary Examiner  
Art Unit 1711**